

10/12/99

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**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)

Applicant, Patentee, or Identifier:

Sean J Egan

Application or Patent No.:

Filed or Issued: 10/1/99Title: System and Method for assigning ratings to mutual funds and other investment funds based on the value of various future and option securities

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

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- ☐ the application identified above.
- ☐ the patent identified above.

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I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

Sean J Egan

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Sean J Egan

Signature of inventor

Signature of inventor

Signature of inventor

10/1/99

Date

Date

Date



10/12/99

Description

FIELD OF THE INVENTION

The present invention relates to a computer-implemented system and method for assigning ratings ("Ratings") to various investment vehicles (the "Funds") using information from public and privately traded financial futures (the collectively the "Futures").

BACKGROUND AND SUMMARY OF THE INVENTION

Futures provide information on expected future returns in various investment areas or asset classes. For example, a financial future on the S&P 500 for the period ending June 2000 is a representation of what the financial markets expect the value of the S&P 500 will be in June 2000. Financial futures are now available for a number of segments of the market, such as US value stocks, US growth stocks, small capitalization stocks, large capitalization stocks, US Treasury Bonds, high yields bonds, etc. By combining information on the Funds with the expected range of future returns, as implied by the pricing of the Futures, one can derive a range of expected future returns, the volatility of future returns, and a rating, which reflects the expected return and the risk of the Fund.

Expanding on the example of the S&P 500 future and a large capitalization mutual fund, if the future indicated that the expected return was an annualized 7%. Using a modification of the Black-Scholes (a widely used option pricing equation developed in 1973 by Fisher Black and Myron Scholes used to price OTC options), one could determine that there was a 66% chance that the return would be within 5 and 9% and a 95% chance that the return would be within 4 and 10% for the period ending June 2000. If the Fund had a historic return that was on average 1% less than the S&P 500, but with the same level of volatility, then the mean expected return would be 6%, and the range of expected returns at the 66% level of confidence would be 4 to 8% (i.e., 1% less than the example with the S&P 500). In the same way, the range of returns at the 95% confidence level would be 3 to 9% (i.e., 1% less than the example with the S&P 500).

In assigning ratings, the expected future return and volatility of future return is compared to that of other investment classes. For example, if large capitalization funds were expected to return 7% with a 4% range at the 66% confidence level, compared to a South American equity fund with an expected return of 5% and a range of 4% at the 66% probability level, the South American sector would be less appealing and therefore have a weaker rating. Note, the relative returns of the Fund are incorporated into the expected future return for the sector in deriving ratings. The Rating represents the expected risk and reward.

Note, the Black-Scholes model is useful for pricing options, whereas we are using futures pricing to determine the expected future returns for various investment areas, and combining that information with the relative performance of a fund and other information such as our assessment of the capability of the investment managers, support staff and characteristics of portfolio securities to derive a rating. Firms that rate Funds use mainly historical returns in assigning ratings.

DIAGRAM

Attached is an illustration of the major steps for assigning Ratings.

MAJOR STEPS FOR ASSIGNING FUND RATINGS

Sector Information		Expected Annualized Median Returns%	Expected Range of Returns%			
Sectors	Corresponding Financial Futures					
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>			
US Large Cap	S&P 500	7.5	1.5			
Fund Information		Annual Return Adjustment Factor%	Negative Variability of Returns%	Adjustment for Negative Variability of Returns	Fund Group Rating	Adjustment for Fund Group and Other Qualitative Factors)
	Annual Return%	<u>6</u>	<u>7</u>	<u>8</u>	<u>9a</u>	<u>9b</u>
Fund A	6.77	-0.295	-0.3	0.1	*****	80%
Fund B	7.36	0.295	-0.5	-0.1	****	90%
Fund C	3.44	-3.625	-0.1	0.3	***	100%
Fund D	8.98	1.915	-0.9	-0.5	**	110%
Median	7.065		-0.4			
Fund Ratings and Expected Future Returns		Range of Expected Annual Returns		Median Expected Annual Returns	Fund Rating	
		Low	High			
		<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	
Fund A		6.105	8.800	7.453	***	
Fund B		6.345	8.750	7.548	****	
Fund C		2.675	9.300	5.988	**	
Fund D		7.265	8.650	7.958	*****	
Median		6.225		7.500		

Notes (refers to the numbers at the bottom of each title):

- Is a listing of the various sectors or types of funds.
- Is a listing of the financial futures that correspond to the various sectors. Note, the Futures change over time.
- Is a listing of the expected returns implied by the Futures.
- The expected range in future returns as implied by prices of options on the futures and various option pricing models.
- The annualized returns of the various Funds.
- The difference between the Fund's return and the median return for other Funds in the sector.
- Factor for adjusting for the negative variability of the Fund.
- A comparison of the negative variability of the return for a Fund to the median for the sector.
- Variance adjustment for qualitative factors such as an assessment of fund management, efficiency, support, systems, and other factors which are reflected in the rating of the Fund Group.
- 10 and 11. The low expected annual return is equal to the median annualized return for the sector (column 3) adjusted for the range of returns (column 4), the Fund's Annual Return Adjustment Factor (column 6), the Adjustment for Negative Variability of Returns (column 8), and for the Qualitative Factors (column 9).
- Is the Median of the Expected High and Low Returns.
- Rating for the Fund based on the median and range versus other funds. In certain cases we use indicators other than "*" for the rating.

System and method for assigning ratings to mutual funds and other investment funds based on the value of various future and option securities

Abstract

The present invention is a system and method for assigning ratings (the "Ratings") on mutual funds and other investment funds (collectively the "Funds") based on various information gleaned from public and privately traded financial, currency, interest rate and other futures, along with options on said futures (collectively the "Futures"). The system combines information on the historical rates of return and variability in the rates of return of the Funds with the expected range of future returns for various asset classes as determined by the pricing of the Futures. The rating for the Funds (the "Rating") incorporates the range of expected future returns, the variability of past returns, and the level of risk. The benefit of the invention is that it will enable investors to evaluate with greater ease the likely returns and risks for various Funds

References Cited

U.S. Patent Documents

<u>4839804</u>	Jun., 1989	Roberts	364/408.
<u>4953085</u>	Aug., 1990	Atkins	364/408.
<u>5132899</u>	Jul., 1992	Fox	364/408.
<u>5148365</u>	Sep., 1992	Dembo	703/36.
<u>5222019</u>	Jun., 1993	Yoshino	364/408.
<u>5237500</u>	Aug., 1993	Perg	364/408.
<u>5471575</u>	Nov., 1995	Giansante	395/144.
<u>5563783</u>	Oct., 1996	Stolfo	364/408.
<u>5884287</u>	April, 1997	Edesess	705/36

Claims

1. A system for assigning Ratings to Funds using information gleaned from the pricing of Futures. Expected future returns for the Funds are combined with information on the relative performance of the Fund to determine the Rating.
2. The use of Futures for assigning Ratings to the relative attractiveness of Funds
3. A listing of the expected range of future returns for the Funds based on pricing and volatility information for the Futures.



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**DECLARATION FOR UTILITY OR
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PATENT APPLICATION
(37 CFR 1.63)**

☒ Declaration Submitted with Initial Filing **OR** ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number

First Named Inventor

Sean J. Egan

COMPLETE IF KNOWN

Application Number

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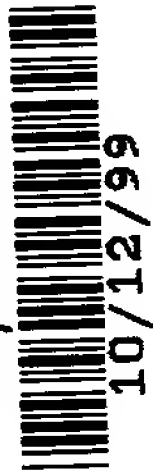
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Group Art Unit

Examiner Name

JC545 U.S. PTO

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610
642-2411

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

System and Method for assigning ratings to mutual funds and other
investment funds based on the value for various future and option

the specification of which

(Title of the Invention)

SECURITIES

☒ is attached hereto
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I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
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☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

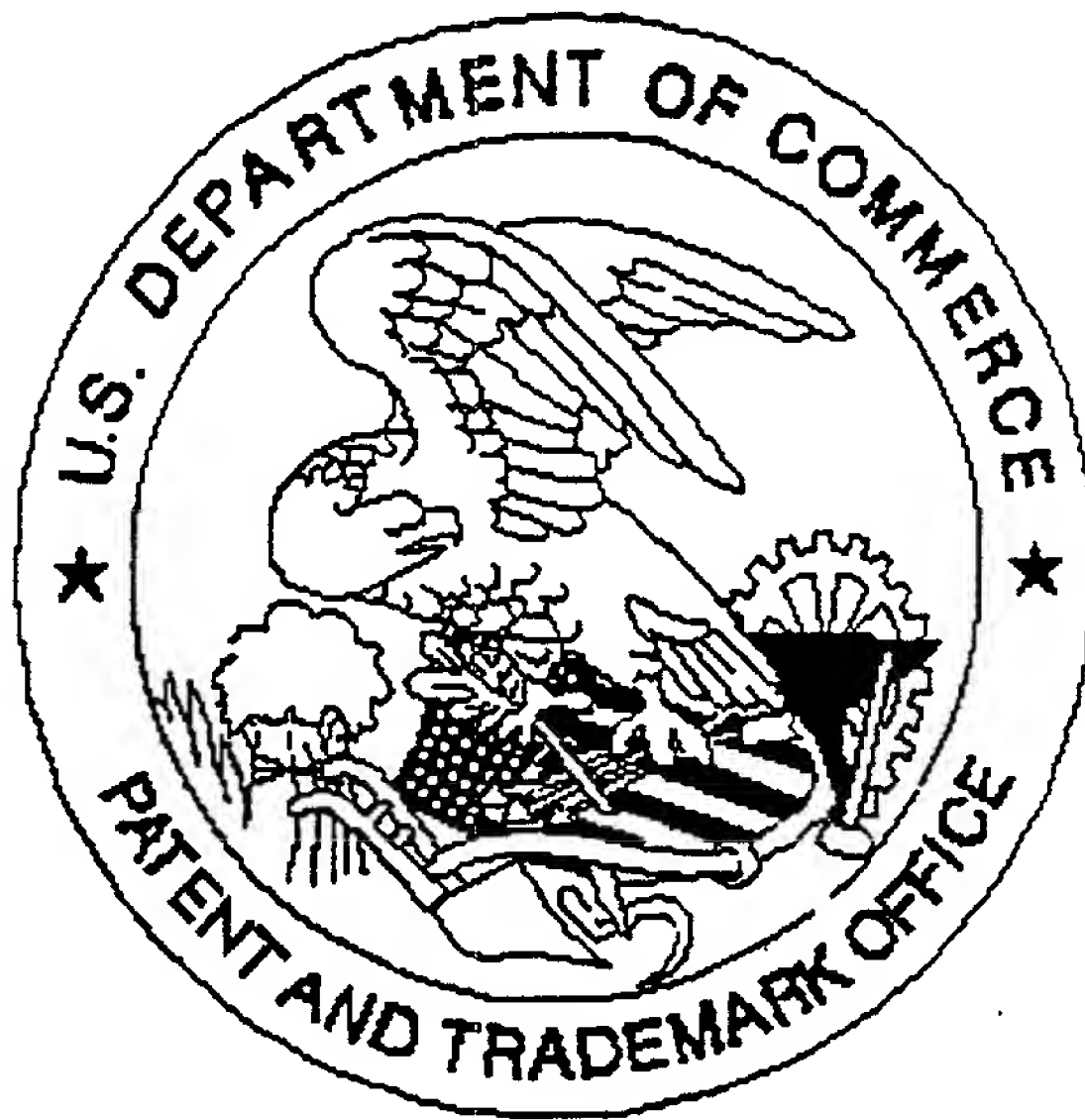
Name of Sole or First Inventor:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])		Family Name or Surname					
Sean Joseph		Egan					
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